

I claim:

1. In a continuous process for the production in a reaction zone of propylene oxide by reacting propylene with molecular oxygen at reactive conditions in a liquid solvent containing a solid epoxidation catalyst slurried in the solvent, the improvement which comprises employing a solvent having a boiling point of at least 130° C, continuously removing a reaction liquid stream from the reaction zone, flashing lower boiling components as vapor from the said reaction liquid stream and recycling a liquid slurry of solvent and catalyst slurry from the flashing step to the oxidation reaction zone.
2. The process of claim 1 wherein the solvent has a boiling point of at least 180°C.
3. The process of claim 1 wherein the solvent is dipropylene glycol monomethyl ether.
4. The process of claim 1 wherein the solvent is methoxy propanol.
5. The process of claim 1 wherein the solid epoxidation catalyst comprises a noble metal on TS-1.
6. The process of claim 1 wherein the solid epoxidation catalyst comprises Pd on TS-1